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REMARKS

This paper is being filed in response to the Office Action mailed November 24, 2004. Claims 1-40 are pending in the application. Independent claims 1, 22, 39 and 40 have been amended. Claims 7-8 and 28-29 have been cancelled without prejudice. Claims 41-43 have been added. A credit card payment form (PTO-2038) to cover the fee payment for the filing of one additional independent claim (\$86) is being filed with this Amendment. Authorization is also granted to charge our deposit account no. 18-1644 for any additional fees necessary for entry of this Amendment.

The Examiner has rejected applicant's claims 1-40 under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps. Particularly, the Examiner has argued that omitted steps in applicant's independent claims 1, 22, 39 and 40 are in the limitation of "an allocation step of allocating a first storage area for metadata in advance on said storage medium," which does not clearly define the step or action to be taken after that which is "in advance on said storage medium." Applicant has amended claims 1, 22, 39 and 40 to eliminate the term "in advance" to clarify the essential steps of the invention. Applicant respectfully submits that claims 1, 22, 39 and 40, as amended, and their respective dependent claims, therefore meet the requirements of 35 U.S.C. § 112, second paragraph.

The Examiner has also rejected applicant's claims 1-5, 7-16, 19-26, 28-37 and 39-40 under 35 U.S.C. § 103(a) as being unpatentable over the Patton et al. (U.S. Patent No. 6,408,301) patent. The Examiner has rejected applicant's claims 6, 17-18, 27 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Patton et al. in view of Levy et al. (U.S. Patent No. 6,505,160). With respect to applicant's claims, as amended, the Examiner's rejections are respectfully traversed.

Applicants' independent claims 1, 22, 39 and 40 have been amended to more clearly define the present invention. Independent claim 1 is directed to an information processing method for storing binary data and metadata related to the binary data into a storage medium, comprising steps of allocating a first storage area for metadata on a storage medium and a series of storage steps relating to storing metadata and link information in the first storage area in adjacent areas to each other and storing binary data in a second storage area. Claims 22, 39 and 40 are directed to a corresponding information processing apparatus, program for executing an information processing method, and storage medium for holding a program for executing an information processing method, respectively. Applicant's claims 1, 22, 39 and 40 have each been amended to further recite that the metadata and said binary data are recorded as a single file.

The structure and method of the present invention enables high-speed access to metadata for searching a large amount of binary data that can easily handle changes in situations due to the addition or deletion of binary data. As described in applicant's specification with respect to Fig. 2, binary data and metadata construct one file, but are stored in different areas on a storage medium. The metadata is stored in a storage area for metadata ("metadata storage area") while the binary data is stored in an area other than the metadata storage area ("general area"). For example, metadata are stored in a metadata storage area 503 and binary data are stored in the general area 504 as shown in Fig. 5 of the Application. However, as a file structure, metadata is attached to the end of binary data, as shown in Fig. 2. Thus, although they are stored in different places, the metadata and binary data are recorded as the same file, so that linkage can easily be made between the binary data and the metadata upon file movement or deletion (Application pg. 8, lines 1-13). In addition, metadata can be

read efficiently because it is recorded in a dedicated area that is has already been allocated for metadata. Such a construction is not taught or suggested by the references cited by the Examiner.

The Examiner argues with respect to claims 1, 22, 39 and 40:

"Patton et al. discloses an information processing method for storing binary data and metadata related to the binary data into a storage medium, comprising: 'An allocation step of allocating a first storage area for metadata...' See col. 3 line 43-60, col. 4 line 20-23. 'A first storage step of allocating a metadata storage area for storing said metadata from said first storage area... into said metadata storage area' See Fig. 1, col. 4 line 20-28. When Patton stored the metadata into the system, this area corresponds to the 'first storage area'. 'A second storage step of storing binary data related to said metadata into a second storage area' See Fig. 1, col. 4 line 39-45. The 'binary data' corresponds to 'still image data' (col. 4 line 43). The 'second storage' corresponds to the area that stored the image data. 'A third storage step of storing link information...' See col. 4 line 45-47. The 'link information' corresponds to 'image links' (col. 2 line 23-35). 'The third storage' corresponds the area that stored the image links... the 'image link is derived from the metadata, and is stored in the disk 16 in Fig. 3. Therefore, the 'link information' must be stored adjacent with the metadata."

The Examiner acknowledged that Patton et al. do not teach the order of storing the binary data, metadata and linking data, but concluded that one of ordinary skill in the art would have recognized that the linking of metadata to binary data would have to occur after the metadata and binary data had been captured and stored, and that the choice of sequence of which of metadata or binary data to capture and store first would have been obvious to one of ordinary skill in the art.

Patton et al. teach storing metadata and binary data (a still image associated with the beginning of a scene change) on removable media such as DVD 16 as shown in Fig. 3. According to the Examiner, when the metadata is stored into the system, the area on which it

is stored corresponds to a "first storage area." However, nothing in Patton et al., including the portions thereof cited by the Examiner, teaches or suggests allocating a first storage area for metadata and then allocating a metadata storage area for storing metadata from the first storage area and storing the metadata in the metadata storage area. As previously stated, Patton et al. teach merely storing the metadata.

Patton et al. also teach storing the metadata and image data as separate files. As noted above, applicant's claims 1, 22, 39 and 40 have been amended to further recite that the metadata and binary data are recorded as a single file. The invention as recited in claims 1, 22, 39 and 40 is characterized by recording metadata and binary data as a single file while storing the metadata and binary data in separate storage areas. Patton et al. teaches that the metadata is recorded in information files associated with a plurality of images (See Abstract, lines 1-6), and binary data (still image) is recorded as a small version thumbnail or Picon to a visual index information file (Col. 4, lines 39-47). The Examiner suggested that Fig. 13 shows that "metadata and said binary data are managed as one file" and "as different files." Contrary to what the Examiner has stated, Fig. 13 shows a new directory and image file is created for image information at step 118 before captured metadata is loaded into the player from the camera. Nothing in the Patton et al. reference teaches or suggests recording the metadata and the binary or still image data as a single file.

Applicant's claims 1, 22, 39 and 40, in requiring allocating a first storage area for metadata on a storage medium, allocating a metadata storage area for storing the metadata from the first storage area and storing the metadata in the metadata storage area, and that metadata and said binary data are recorded as a single file, thus patentably distinguish over Patton et al. The alleged knowledge of a person with ordinary skill in the art adds nothing to

change this conclusion. Claims 2-6, 9-21, 23-27 and 30-38 each depend either directly or indirectly from claims 1 or 22 and are patentable for at least the same reasons as set forth above.

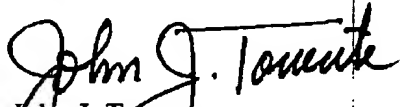
Added claims 41 and 42, which directly depend from independent claims 1 and 22, respectively, are also submitted as patentable for at least the same reasons as discussed above with respect to such claims. Applicant's added independent claim 43 is directed to an information processing apparatus including an allocation unit and first, second and third storage units and corresponds to the method, apparatus, program and storage medium of claims 1, 22, 39 and 40, respectively. Claim 43 is therefore also submitted as patentable for the same reasons.

In view of the above, it is submitted that applicant's claims, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of the claims is respectfully requested. If the Examiner believes that an interview would expedite consideration of this Amendment or of the application, a request is made that the Examiner telephone applicant's counsel at (212) 682-9640.

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